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21 October 1985

Worldwide Report

**TELECOMMUNICATIONS POLICY,
RESEARCH, AND DEVELOPMENT**

FBIS FOREIGN BROADCAST INFORMATION SERVICE

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21 October 1985

WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

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AUSTRALIA

GOVERNMENT EXPECTED TO REVIEW TV OWNERSHIP LAWS

Melbourne THE AGE in English 27 Aug 85 p 3

[Article by Michele Grattan]

[Text]

CANBERRA. — The Federal Government is expected to announce a review soon which could lead to new ownership and control provisions for Australia's television industry.

The inquiry, to be done by the Communications Department, would look in particular at the rule which bars one owner having more than two television stations.

While there is no chance of this provision being varied for the Sydney and Melbourne stations, if only for obvious political reasons, there has been increasing feeling from the Australian Broadcasting Tribunal and the Communications Department that the law should be changed for stations in other centres.

If the rule was relaxed, there would be greater opportunity for existing or new TV owners to develop into middle-level players who could compete better with the big owners, such as Packer and Murdoch, in buying and possibly producing programs.

One of the notable developments in the broadcasting industry in the past week was the decision by Mr Robert Holmes a Court to buy space on the new domestic satellite. This has raised speculation that Mr Holmes a

Court, who already has two stations, may be intending to develop a "fourth network".

The review would be asked to take particular account of the Government's desire to increase the TV services in regional areas of Australia.

It would report to the Communications Minister, Mr Duffy, early next year who would then release its discussion of available options for public comment before the Government made decisions.

The move follows an earlier report from the Communications Department, released in July, which recommended a review of ownership and control provisions to overcome "structural imbalances" created by the Melbourne and Sydney networks.

That report, "Future directions for commercial television" said the two-station law was outmoded because it took no account of the size of stations and the networking potential of new satellite technology.

It said: "The defect in the current rules is that they treat all licences exactly the same and thereby ignore the real influence of licensees within the Australian commercial television system.

"What is needed are rules for the expansion and growth of commercial television interests outside Sydney and Melbourne. This will require a thorough study of the existing ownership and control rules."

Government officials have been having extensive discussions with the TV industry about the proposed inquiry, the terms of reference for which are ready to go to Mr Duffy. While the networks have been wary about the inquiry, they are also anxious to see the regional market expanded so they can sell their programs more widely.

A top priority in the Government's television policy is the "equalisation" policy under which all regional viewers would have access to similar services to city viewers — usually three commercial television stations.

Mr Duffy is concerned that structural changes in the TV industry being brought about by the new domestic satellite should not further exacerbate the problems of concentration of ownership. He sees merit in relaxing the two-station rule, but is concerned about the structural implications of whatever new ownership and control proposals would replace it.

AUSTRALIA

BRIEFS

CORRECTION OF SATELLITE POSITION--The Australian communication satellite, Aussat-1, will be moved into its preferred orbit following an agreement by Japanese authorities to move one of their satellites this weekend. The Japanese space program has agreed to move its inactive weather observation satellite to avoid a chance of collision with Aussat-1. Representations were made to Tokyo last week after Aussat insurance brokers said they thought it was possible that the collision could occur. An Aussat spokesman has said it would take a couple of days to move Aussat-1 into its preferred orbit. [Excerpt] [Melbourne Overseas Service in English 0430 GMT 28 Sep 85]

CSO: 5500/4302

HONG KONG

BROADCASTING REVIEW BOARD RELEASES REPORT

Hong Kong HONGKONG STANDARD in English 12 Sep 85 p 7

[Text] THE Broadcasting Review Board has proposed in its report released yesterday an overhaul of the industry, with drastic suggestions which included severing Radio Television Hongkong's government links and a complete ban on tobacco advertising on electronic media.

It criticised the existing regulations on the industry and suggested the present monitoring authority be replaced by two bodies responsible for administrative and judicial tasks respectively. It also said TVB's corporate structure was contrary to the spirit of the Television Ordinance.

The radio services were, however, left largely untouched, except for the Chinese services which were accused of carrying insufficient educational material. Copies of the full 600-page report, which had been submitted to the governor last month, will only be ready for distribution by the end of October.

But until then, one copy of the report is available at the Government Information Services library for reference. The public has been given until January to comment on the board's recommendations.

A government spokesman stressed that views in the report are those of the review board and are not government proposals. The administration is now studying the report and will draw up recommendations on the broadcasting policies to be adopted when the current television and radio licences expire in 1989 and 1989 respectively.

The review board, set up in February 1984, is headed by Justice Noel Power. It met 112 times and consulted the public and broadcasting industry intensively before drawing up its report.

The most revolutionary proposal was that Radio Television Hongkong be turned into a public broadcaster independent from the government both editorially and financially. RTHK would then be supported by advertising money its television programmes generates.

The board's idea is that the station's programmes be allocated prime time on commercial television channels. This arrangement would guarantee RTHK had enough revenue and avert direct competition with the more established commercial licensees.

The board offered two options on the allocation of programme times. The first is for RTHK to be the sole operator of both Chinese services on each weekend. The other is for it to have a monopoly of the Chinese services during the 7 pm to 8 pm prime time every weekday plus other time slots at weekends.

The board said it was aware both options would mean channelling part of the commercial stations' advertising money to RTHK. However, it believes there should be enough revenue to support the proposed arrangements.

It believes revenue so generated should be able to cover all of RTHK's television and some of its radio services.

At the initial stage, the government must continue to give the station some financial assistance.

The board's logic for these new arrangements is that the station is producing the type of programme the public needs and likes and that such need is expected to grow.

It noted that RTHK was now being prevented from satisfying this growing need because it could not get prime or near-prime time.

Also, the station would not be seen as editorially independent if it continued to be part of the government. Certain members of the station had expressed concern that RTHK had been viewed in some quarters as a government propaganda machine.

"Whether or not this is true is not the issue. The harm is done if a substantial number of people believe it to be true," it said in the report. It suggests that RTHK be reconstituted as an independent corporation with its own board of governors appointed by the governor. The corporation should be granted its own charter as a public broadcaster with a duty to inform, educate and entertain.

On advertising, the board proposed a blanket tightening of control with the most drastic move being the banning all cigarette advertisements on television and radio. The no-alcohol advertisement time, now from 4.30 pm to 6.30 pm, should be extended to 8 pm. Advertisements which glamorise the consumption of alcohol should be prohibited, it suggested.

The board also put forward a host of regulations on advertising breaks and intervals between programmes. It noted that there had been grumbles on the excessive length and frequency of advertising breaks.

It proposed that overall daily advertising limit be increased from 10 percent to 12 percent of air time. The board proposed a revamp of the way the industry is being controlled.

It suggested the setting up of a Broadcasting Authority to deal with all administrative works and a Radio and Television Complaints Tribunal to sort out judicial issues.

The present method of having the monitoring and regulation job done by one man — the Commissioner for Television and Entertainment Licensing (CTEL) — has been "less than effective."

The CTEL was called to perform too many conflicting roles and had failed to enforce certain licensing conditions in some instances, it said.

The future Broadcasting Authority should comprise six

unofficials and three official members, all appointed by the governor. The Tribunal should also have six members including the chairman, who should be a High Court judge.

Concerned parties would have rights to opening hearings and the tribunal would have to justify all decisions in writing. The board proposed a 500 percent increase in penalties for breaching broadcasting regulations.

It suggested that radio and television licence terms be shortened from 15 years to eight, and that the licences be subjected to mid-term reviews.

The level of censorship on television programmes should remain the same by and large but control over children programmes should be stricter.

The board said commercial stations should produce more documentary and current affair programmes. It noted that contents of children programmes were not all that satisfactory.

It said that the standard of children programmes could be improved in the long run by drawing up a code of practice; setting up a children's television foundation and encourag-

ing licences to form children's programme advisory groups.

On royalties charged by the government from commercial licences, the board proposed replacing the existing calculation method which is based on net profit to one which is based on total turnover.

In a review of the corporate structure of the two commercial television stations, the board pointed out that TVB, being a member of "conglomerate of companies", was not in keeping with the spirit of the Television Ordinance.

It said a television licensee must be a company whose sole business shall be the operation of a television broadcasting service.

Other recommendations are:

- Tenders be invited for a single cable television service for the whole of Hongkong;

- Improving services in poor television reception areas;

- The Broadcasting Authority should assist in setting up pilot schemes to test the feasibility of community radio stations;

- Setting up an Academy for Radio and Television Arts under which awards are granted annually for excellence.

HONG KONG

XINHUA EXPANDS OPERATIONS IN HONG KONG

Hong Kong HONGKONG STANDARD in English 17 Sep 85 p 5

[Text] The third Hong Kong sub-office of Xinhua News Agency was officially opened for business in Central yesterday.

Two other sub-offices, one in Kowloon and the other in the New Territories, started opening last week.

There were no official ceremonies for the occasion although several members of the local media were invited to pay a visit to the new office.

Journalists were warmly welcomed by the officials who said the offices would be open to the public for enquiries and subscription assistance and to receive views on various issues.

The officials said there are no specific assignments for the newly-opened sub-offices expect to share the workload of the main Hongkong office of Xinhua at Queen's Road East.

The heads of the district offices in Central, Kowloon and the New Territories are Mr Wong Yue-gun, Mr Fang Jun and Madam Chan Fong respectively.

All three have long and substantial connections with Hongkong and Macau.

Mr Wong was born here and has been serving the local Xinhua office since 1961. Most recently he worked as assistant director of the Central district office.

Mr Feng was also raised and educated in Hongkong. In 1950s, he went back to the mainland and then served in the Guangdong provincial government.

Mr Feng returned here just nine months ago. Before that, he was in charge of personnel affairs in the Guangdong People's Government.

Madam Chan, who was born in Macau and received her secondary education there, entered the department of economics at Guangzhou's Zhongshan University in 1940s.

She was a deputy head of the personnel department in the local Xinhua before she took up the new job in the New Territories office.

CSO: 5550/0009

HONG KONG

BRIEFS

INTELPOST SERVICE EXPANDED—Eleven more Post Offices will handle the facsimile service, Intelpost, from next Monday, a Post Office spokesman announced yesterday. The expansion doubles the number of post offices able to accept documents, drawings and photographs for transmission on the high-speed facsimile service which now links Hongkong to 32 countries. "It is already one of the world's largest public electronic mail services and the Intelpost network is growing fast," the spokesman said. Intelpost combines the transmission speed of telex with the reproduction quality of a photocopier. Businesses with their own facsimile machines will also be able to transmit items direct. The new acceptance points are: Aberdeen, Causeway Bay, Tsat Tsz Mui and Wong Chuk Hang on the island; Cheung Sha Wan, Gillies Avenue, Kowloon East and San Po Kong in Kowloon; and Kwai Fong, Tsuen Wan and Tsuen Wing Street in the New Territories. [Text] [Hong Kong HONGKONG STANDARD in English 14 Sep 85 p 2]

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21 October 1985

PEOPLE'S REPUBLIC OF CHINA

PRC PLANS TO BOOST ELECTRONICS OUTPUT TOLD

Hong Kong SOUTH CHINA MORNING POST in English 17 Sep 85 Supplement p 1

[Article by Olivia Sin]

[Text]

China will embark on an ambitious technology absorption programme to reach a six to eight-fold increase in its electronics industry output by the year 2000, a top Chinese official said yesterday.

Priorities will be given to the technical renovation of thousands of old electronic factories and the development of integrated circuits (ICs), said the president of the China National Electronics Import and Export Corps (CNEIC), Mr Li Deguang.

Mr Li was speaking after a reception to launch a new publication highlighting China's market potential for electronics technology.

Chinese leaders have said China will quadruple its industrial and agricultural output by the turn of the century.

To reach this goal, Mr Li said the electronics industry had to surpass other economic sectors and register a higher growth rate.

"Our aim is to reach a six to eight-fold increase in our

total value of electronics output," he said.

Mr Li, who is also the director of the Chinese Institute of Electronics, said China would avoid spending foreign exchange on the production of consumer goods like television sets and recorders.

The import of production and assembly lines for making such goods would be highly restricted, he said.

"We have introduced several dozen assembly lines for television sets which will help us produce enough to satisfy our domestic demand," he said.

But Mr Li said the country was not imposing a total ban on the import of such technology.

"Corporations like joint ventures which can balance their own foreign exchange accounts (without seeking help from the country) will be allowed to import a small amount of that equipment," he said.

Mr Li also said there were signs that both the US and Cneic were easing their con-

trol on high-tech sales to China.

Cneic, the Co-ordinating Committee for Multilateral Export Control, is a Paris-based agency which restricts the export of high technology goods to communist countries.

Mr Li said China still found it hard to obtain technology like sophisticated optical and photographic instruments.

"I am optimistic that there will be further relaxation from the US and Cneic," he said.

Apart from ICs, other key development areas include microprocessor-based products, telecommunication equipment and electronic testing tools.

CNEIC last year spent US\$700 million on imports and exported \$100 million of electronic goods.

The new monthly magazine — Electronics and Technology for China — is jointly published by the CNEIC and Inter-Trade Publishing Co, a local group.

PHILIPPINES

MANILA LAUNCHES JAPAN-AIDED TELECOM PROJECT

OW121051 Tokyo KYODO in English 1012 GMT 12 Sep 85

[Text] Manila, 12 Sep (KYODO) —Japanese Posts and Telecommunications Minister Megumu Sato arrived in Manila Thursday to attend the inauguration of a 7.6 billion yen Japanese-assisted telecommunication project in northern Philippines.

Sato will pay a courtesy call on Philippine President Ferdinand Marcos on Friday at the Malacanang (Presidential) Palace before the inauguration program, which will be featured by a ceremonial conference call between Marcos and two provincial governors.

A Japanese Embassy official told KYODO NEWS SERVICE that the telecommunications project was funded through the Overseas Economic Cooperation Fund (OECF) foreign currency loan.

He said "Phase A," the project to be inaugurated by Minister Sato, will consist of 23 telephone exchanges and one telegraph exchange in various towns in 13 northern provinces on the main Island of Luzon.

He said the Japanese and Philippine Governments are negotiating "Phase B," which will cost 7.1 billion yen for an additional 31 telephone exchanges.

A Philippine Bureau of Telecommunications official told KYODO that the two-phase project will benefit 51 towns and cities in northern Philippines. He said the project began in mid-1983.

The inauguration ceremonies will be followed by a meeting between Sato and his Philippine counterpart, Transportation and Communication Minister Jose Dans, Jr.

CSO: 5500/4301

VIETNAM

USE OF MICROELECTRONICS INTRODUCED BY VIETNAM PRESS

Haiphong HAI PHONG in Vietnamese 13 May 85 p 2

[Text] VIETNAM PRESS is the official information organ of our party and state and has the duty to collect domestic and international news and data on current events. It has an information network in 40 provinces, cities and special zones and is capable of supplying news and data to newspapers and broadcasting stations at the central and local levels. It has a branch network abroad, including the USSR, Laos, Kampuchea, Czechoslovakia, Cuba, nonaligned countries such as India and Algeria, and capitalist ones such as France and the United States.

Every day, VIETNAM PRESS issues over a half million words of news and data throughout the world and our country. Its television transmitter network exchanges pictures of current events with over 60 countries in the world through the PI (PHOTOINTERNATIONAL) medium.

During every development phase of information science and technique, VIETNAM PRESS has continuously maintained technical homogeneity with international press agencies.

Electronics is now in a stage of sudden development and is deeply permeating all spheres of social activity, such as information, management, economics and medicine. VIETNAM PRESS is urgently organizing the training of cadres to work in the microelectronic field, cooperating with some fraternal press agencies and advancing toward the use of electronic devices in its international information network and some of its major domestic branches.

During the process of using electronic equipment, VIETNAM PRESS has projected and successfully introduced the use of an complete system of accented words of the Vietnamese accented language in the areas of information, economic management and civil affairs administration.

The introduction of Vietnamese accented words into the information processing sector heralds the elimination of frequent erroneous guesses so far made in transmitting documents with unaccented words.

In matters of speed, the microprocessing equipment designed and assembled by VIETNAM PRESS enables the terminal points of its internal network to communicate with each other at very high speed with great effectiveness of the communication line.

Moreover, the central microcomputer equipment makes it possible to process and file hundreds of pages of news and documents at a time and also to advance toward processing and filing a huge amount of data.

Following are some technical specifications about the equipment shown at the current exhibition:

--The TTX-MC central microcomputer equipment includes a microprocessing unit, a 64 KBYTES RAM memory unit and two soft-disc memory centers capable of storing 200 pages of documents, with telecommunication cut-off plates (through MODEMS) and breakers to sever contact with the TTX-ED editing screen and the quick printing machine.

--The TTX-EDI editing screen is capable of editing documents in fully accented Vietnamese language, processing lengthy documents of up to 20,000 words and directing the Vietnamese quick-printing machine.

--The quick communication device has a speed of 40 words per second, with Vietnamese, English and Latin character sets built in the memory set.

--A MODEM is a special and modern type of communication equipment which enables microcomputers to intercommunicate on ordinary telephonic lines at a speed reaching 1,200 bauds which is equivalent to 100 words per second.

9332

CS0: 5500/4351

ROMANIA

REPORT ON BUCHAREST INTERNATIONAL TELECOMMUNICATIONS SEMINAR

Bucharest LUPTA CFR in Romanian 26 Apr 85 p 4

[Article by Mihaela Albu]

[Text] Today in the capital work was concluded on the cycle of studies on technical and operational aspects of centralized maintenance organized by the International Telecommunications Union in the framework of the European regional project for the development of international telecommunications. The working seminar, which was held from April 18-26, brought together delegates from Bulgaria, Czechoslovakia, Greece, Yugoslavia, Malta, Poland, Portugal, Hungary, Turkey and Romania, demonstrating, on the one hand the importance of maintenance in improving the performance of the network, in raising the quality of service and, constituting, on the other hand, a valuable exchange of experience of high scientific and technical content.

In his opening statement, comrade Stelian Pintilie, deputy minister of transportation and telecommunications, pointed out that our country's telecommunications system has, in the last 20 years, moved forward with the growth of the Romanian economy. In that period the number of telephone installations grew more than 10 times, with more than 2 million phones now in operation; in particular, the telephone network enjoyed the development of a net of trunk transmissions assured by cables equipped with systems of high capacity carrier current. The speech stressed the concern of Romanian specialists for promoting innovations in this sector, a concern which includes the gradual digitalization of the network with important cost advantages in cabling, the elimination of losses in switching and in the creation of new services, the spread of electronic switching centers--for small capacity sources, for the introduction of electronic switching, and for the generalization of centralized supervision based on telephone switching center computers. At the same time he emphasized the unending search for new modalities for solving problems posed by the development, systematization, maintenance and exploitation of the national telecommunications system.

In his speech, vice secretary general of the UIT [Union of Technological Engineers], Jean Jipguep, insisted on pointing out the need for maintaining close coordination between scientific research, technological progress and the constantly increasing demands of contemporary universal modernization with its unmistakable "central nervous system"--telecommunications.

When his turn came, the representative of the UN program for development, Noel Eichhorn, stressed the importance of the work of this seminar which represents a continuous and fruitful collaboration between specialists from diverse countries, thus outlining an uninterrupted dialogue with the future.

Within the scope of the five sessions concerning the possibilities and control of maintenance, maintenance control centers, the organization of administration and maintenance, the norms and quality of service and computer aided systems, lecturers from France, West Germany, England, Sweden, Holland, Greece, Portugal and Romania delivered papers on the difficulties in the process of exploiting the telecommunications network and equipment, with all that implies. In this regard they discussed problems connected with long distance supervision of maintenance and the control of the quality of telecommunications services, proposing centralized maintenance systems; the applications of maintenance control centers in electronic switching systems and in local networks; the organization of rapid damage repair and the supervision of public telephones; the administration of services for subscribers and their cooperations with operational and administrative services; the control of subscriber service quality by logging calls completed and by supervision of interurban circuits, etc.

Thus we take note of the contributions of Romanian specialists, in a multitude of solutions and ideas, who presented works of great scientific interest. For example, the paper by Dr. Engineer Sofronie Stefanescu, scientific director of the ICPTIC [Technological Research and Design Institute for Telecommunications], concerning the improvement of telephone network reliability, dealt with interesting and efficient solutions for extending the service life of the network without modification of the qualitative parameters. Two other Romanian electronics engineers, Andrei Vasilescu, head of the ICPTIC, telephone switching laboratory and Engineer Ion Dobre, a scientific researcher at the same institution--described the detailed construction and operation of smart centralized maintenance equipment for PCM systems developed at the institute.

A prestigious technical-scientific event, the international telecommunications seminar offered participants the privilege of very rapidly assimilating new technologies with the aim of optimally utilizing an ensemble of available infrastructures through different procedures that assure the most effortless development of long-distance information transmissions.

9794

CSO: 5500/3029

BRAZIL

SARNEY 'DISGUSTED' BY U.S. COMPUTER DECISION

Sarney Defends Law

PY170245 Sao Paulo FOLHA DE SAO PAULO in Portuguese 12 Sep 85 p 10

[Text] President Jose Sarney is quite disgusted with President Ronald Reagan's decision, but wants the question to be dealt with at the technical level, an adviser close to the president has revealed. According to this adviser, Sarney does not want this issue to be politically exploited during this year's electoral campaign, because it could generate strong animosity toward the United States, something he considers inopportune.

For that reason, the president decided to let Itamaraty handle the question and report on it accordingly. The reason for the president's disgust, as explained by the adviser, is that the U.S. decision was made precisely at a time when Brazil is trying to consolidate its democracy. To do this, Brazil needs to exercise sovereignty in making decisions, such as that of protecting its mini- and microcomputer market.

The Itamaraty position is now to wait rather than to make decisions. It is waiting for a U.S. move before deciding how to react. The intent of the U.S. initiative cannot be clearly seen. Officially, however, according to Foreign Minister Olavo Setubal, Brazil fears commercial retaliation from the United States and does not intend to put on trial its internal policy regarding the computer sector. The minister expressed this view yesterday after an hour-long meeting at the Planalto Palace with President Jose Sarney, Science and Technology Minister Renato Archer, and Industry and Commerce Ministry Roberto Gusmao.

In his meeting with the ministers, President Sarney decided that any official statement on this new example of protectionism in the commercial relations with the United States will be made through Itamaraty.

The meeting was convened by President Jose Sarney to evaluate the impact and the consequences of President Reagan's latest pronouncement threatening Brazil with commercial retaliation if the current Brazilian Government does not remove the customs barriers raised in the so-called Informatics Law against imports for the computer sector from the United States.

Asked whether the Brazilian Government is afraid of reprisals from the United States, which could seriously affect Brazilian exports of products such as textiles, steel, and shoes, thus hurting the level of domestic employment at a time when the country is trying to resume its economic growth, Foreign Minister Olavo Setubal tersely replied:

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"We are not concerned. We are a sovereign country and know how to discuss the questions affecting us with the great vision of our own country. We will discuss these questions before all world forums." According to Minister Setubal, there is no reason to put up for discussion the Brazilian Government's policy of monopoly of the computer market. Brazil is a sovereign country and it defines its own industrial policy without consulting any other country. Minister Setubal, however, said that the Brazilian Government deeply deplored the statement made by President Ronald Reagan, and expressed this sentiment in a note Itamaraty issued late last week.

Brazil should not at this time take any initiative, Minister Setubal said, and added: "If someone has to take an initiative, that initiative should be taken by the U.S. secretary of state." He then said that the Brazilian Government is calm. Asked whether the government would make any concession for U.S. imports, Minister Setubal emphatically answered: "We are not negotiating anything."

For Science and Technology Minister Renato Archer, 62, the Informatics Law is a question of "national sovereignty," and he adding that this Law is an instrument for the country's scientific and technological development. So, he said, it does not stand for the defense of an area of production, of an industry, but for the defense of "a means of economic and social development of the country as a whole."

The position of President Sarney, according to Minister Archer, is to defend the Informatics Law. The science and technology minister said that the meeting of the National Informatics Council has been called by Communications Minister Antonio Carlos Magalhaes for 30 September. Minister Magalhaes criticized the Informatics Law about a month ago. According to him, some aspects of this law banning the import of equipment for the telephone industry will only hinder the development of this industry in Brazil.

Science Minister Comments

PY180148 Brasilia Domestic Service in Portuguese 2200 GMT 17 Sep 85

[By Francisca Rodrigues]

[Text] Science and Technology Minister Renato Archer today dedicated a methane purification plant in Campinas. The gas produced at the plant will be used as fuel for automobiles. After the ceremony, the minister referred to the pressure that the U.S. Government has exerted to make Brazil abolish the Informatics Law. Archer said Brazil will not yield.

[Begin recording] There is no way we can yield to such pressure, because the computer sector in Brazil is regulated by a law that was unanimously approved by Congress. Therefore, only Congress can change it. Congress has clearly pointed out that there is no reason to change the Informatics Law. International companies do not exert pressure. If they find that the country is properly caring for its interests, they accept the existing laws. If they think the government is not acting with resolve and that it may agree to reconsider a situation, they exert pressure to defend their interests. No company has tried to pressure Brazil. There has been only a public announcement that Brazil will be pressured, but our country has not changed its position. [end recording]

CSO: 5500/2000

BRAZIL

GUIMARAES STRESSES NECESSITY OF INFORMATICS LAW

PY251902 Rio de Janeiro O GLOBO in Portuguese 24 Sep 85 p 22

[Text] Sao Paulo -- The reserving of the market for the national informatics industry was a wise measure that permitted the development of that industry in the country. Therefore, this measure should not be abrogated despite the foreign pressures exerted on the government. This was the tone of the speeches delivered yesterday during the opening of the 18th National Informatics Congress and the 5th International Informatics Fair at Anhembi Park [in Sao Paulo]. The ceremony was presided over by acting President Ulysses Guimaraes. Eleven ministers and [Sao Paulo] Governor Franco Montoro also were present.

Ulysses Guimaraes stated that the informatics industry of Brazil has acquired an almost symbolic character because it has permitted a resurgence, through the national Congress, of the exercise of democracy and sovereignty after years of arbitrariness. According to Guimaraes, the Congress affirmed itself as an instrument of the people's will and as a catalyst of the nation's ideals when it voted on the Informatics Law, which in his opinion represents the expression of the national goals of progress, liberty, and autonomy.

The acting president added that "Brazil could never relinquish its right to grow, free from the threats of economic and technological submission that could compromise our democratic option and our hopes for well-being."

Guimaraes emphasized that the significance of the informatics industry for the country's social, economic, political, cultural, scientific, and technological development confirms the conviction that the maintenance of a conscientious, dynamic, firm, and judicious informatics policy is a must.

Science and Technology Minister Renato Archer recalled that the Informatics Law emerged from a broad debate in which several social levels participated. Finance Minister Dilson Funaro stated that reserving a market is the only tool the underdeveloped countries possess to guarantee the necessary technological development. Paulo Roberto Feldman, the president of the 18th National Informatics Congress, stated that "the Brazilian informatics model is the only case in our modern history of an industrial policy discussed and sovereignly approved by a nation's congress."

CSO: 5500/2000

BRAZIL

OFFICIALS CITED ON POSSIBLE U.S. TRADE REPRISAL

PY251611 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 21 Sep 85 p 33

[Excerpts] In order to avoid a direct confrontation with the United States over the computer law, the Brazilian Government is considering accepting the inclusion of "services" in the multilateral GATT [General Agreement on Tariffs and Trade] negotiations.

If the United States implements a reprisal, according to one minister, Brazil could respond by opening its market to Japanese automobiles such as Toyota and Datsun. If Brazil has to respond to a U.S. reprisal, a high-level adviser in Planalto Palace is studying the preparation of a Brazilian commercial law similar to the U.S. Trade Act to make the government's retaliatory actions official. This law would be subject to congressional approval. Officials responsible for this issue in Planalto Palace, Itamaraty, and the Ministry of Science and Technology have said that the Brazilian Government will remain silent and show moderation until the U.S. Government adopts a concrete stand against Brazil's computer industry policy. The sources indicated that President Jose Sarney himself made this decision during a meeting with Foreign Minister Olavo Setubal, Industry and Commerce Minister Roberto Gusmao, and Science and Technology Minister Renato Archer on 9 September after President Reagan criticized the Brazilian computer industry policy. During the meeting Minister Gusmao warned President Sarney that Brazil could not defeat the United States in a commercial confrontation and that Brazil could be hurt in the negotiations at the International Coffee Organization in London. Minister Setubal proposed making concessions to the United States through the National Council of Computer Industry and Automation [Conselho Nacional de Informatica e Automacao -- CONIN] without the need to have the informatics law changed by Congress. Minister Archer rejected this idea and received the support of President Sarney, who closed the discussion with the argument that to negotiate with the United States in accordance with the Trade Act would be a violation of national sovereignty.

CSO: 3500/2000

ALGERIA

BRIEFS

APS STARTS DAILY SPANISH TRANSMISSION--Algiers, 15 Spetember (APS)--The national information agency ALGERIE PRESSE SERVICE set up from 7 September 1985 a daily service of national information in Spanish language towards Latin American countries. Through these emissions in four languages Algeria contributes concretely to the developing countries' efforts aimed at setting up a new international information order. [Excerpt] [Algiers APS in English 1339 GMT 15 Sep 85 LD]

CSO: 5500/4600

INDIA

MINISTER TELLS THRUST OF TELECOM 5-YEAR PLAN

Madras THE HINDU in English 8 Sep 85 p 13

[Text]

MADRAS, Sept. 7.

The Planning Commission "is yet" to finalise the telecommunications plan, and it is now looking around to find the resources. A decision may be taken soon, Mr. Ram Nivas Mirdha, Union Minister of State for Communications, told newsmen here on Saturday.

Mr. Mirdha, who arrived here on Friday night, said the Ministry had submitted a plan of Rs. 13,000 crores but this was whittled down to Rs. 11,000 crores by a working group of the Planning Commission.

The Union Ministry has decided to set up two separate public sector enterprises for the telecom network in Bombay and Delhi. Once these corporations were set up, the scheme might be extended to other metropolitan cities. These bodies functioning as independent entities would be more flexible in their operations and render better service than what the department was now offering.

Upgradation of technology: He explained that the thrust of the Ministry's Seventh Plan programmes would be on technology upgradation to overcome obsolescence. Already 34 entrepreneurs including several State Electronic Corporations were given licences to manufacture telephone equipment, PABX exchanges, etc. The Government had only insisted on centralised import of foreign technology from Sweden, Italy and West Germany for telephones and France, Belgium and Japan for production of PABX equipment.

The telecom system in the country was not working satisfactorily. There were over 30 lakh telephones and the waitlist was over nine lakhs. This list was not the correct indicator of the need. The telephone is no longer a luxury.

Expansion of phone exchanges: Referring to the demand for more telephones for Madras, the Minister said the Flower Bazar Exchange would be commissioned by March next. In the Seventh Plan, it was proposed to commission 1.64 lakh lines subject to availability of funds. During 1985-86, 20,000 lines would be added to

the Madras Telephone system. The exchange at Harbour would be expanded by another 5,000 lines. Kellys by 3,000 and Adyar by 2,000 lines.

Of the 1.12 lakhs lines equipped capacity at present, about 27,800 lines of life expired and worn out equipment were located in five Strowger exchanges. These would be replaced progressively during the Plan period. The old Anna Road Exchange would be replaced by two electronic digital exchanges in 1986-87 and 1987-88.

Telex exchanges in the city had a capacity of 2,700 lines with 2,045 working lines. The demand for telex connections would be met immediately, subject to availability of local junction cables.

During the Seventh Plan, vertical extension to the Nungambakkam exchange, new telephone buildings at Chromepet, vertical expansion to buildings at Kellys, administrative building on Millers Road and new exchanges at Anna Nagar and Mandaveli would be completed.

The Minister said an in-house computer was planned to be commissioned for special services like Directory enquiry, complaints, revenue billing, accounting and cable records in the Madras Telephone system.

Diesel generator inaugurated: Inaugurating a 660 KVA diesel generator imported from Czechoslovakia (SKODA) at a cost of Rs. 35 lakhs, Mr. Mirdha congratulated the Hindustan Teleprinters Limited for putting up a huge captive power generation set to improve production. He was happy to note that the new electronic teleprinter would be ready by November for use by various Government Departments. The Ministry of Communication had decided to import 2,000 such machines for replacement of old equipment.

Mr. R. K. Baliga, Chairman and Managing Director, HTL, welcomed the Minister. Mr. N. R. Panchapakesan, General Manager (Production) proposed a vote of thanks.

INDIA

HINDUSTAN TELEPRINTERS ENVISAGES 500 PERCENT GROWTH

Madras THE HINDU in English 7 Sep 85 p 12

[Text]

MADRAS, Sept. 6.

The Hindustan Teleprinters envisages a 500 per cent expansion/growth during the Seventh Plan period with a total capital investment of Rs. 41.93 crores which will ensure an annual turnover of Rs. 43.46 crores at the end of the plan. Mr. R. K. Baliga, chairman and managing director of HTL told THE HINDU here today.

The company would produce electronic teleprinters in collaboration with SAGEM of France. The estimated cost of the project is Rs. 6 crores. It is being implemented on a priority basis and during the current year "We hope to double our investment from Rs. 10.50 crores to Rs. 22 crores", Mr. Baliga said.

About 3,500 electronic teleprinters would be produced during 1985-86. The first machine will be handed over to the P and T Department by November. There are over 8,000 orders on hand from various Central Ministries and pri-

vate organisations.

In phase II, 4,500 would be produced, by phase III it would increase to 6,000 units and ultimately by 1988-89, HTL would reach the rated capacity of 8,000 units. The total requirements of the P & T, during the Plan period, of 45,000 units would be met by HTL. The factory to produce these teleprinters is coming up in Hosur and civil works would be taken up shortly.

In view of the Union Government's policy to allow the private sector to manufacture telecom equipment, HTL will face severe competition. The experience gained and the expertise built up by HTL in the manufacture of teleprinters for the past two decades would enable it to stay steady in the market.

The electronic teleprinter manufacturing activity will account for 80 per cent of HTL's future activities. The contract was finalised in the shortest possible time and work is now in an advanced implementation stage.

CSO: 5550/0002

INDIA

INDIGENOUS DESIGN FOR COLOR TELEVISION RELEASED

Calcutta THE STATESMAN in English 11 Sep 85 p 9

[Text] New Delhi, Sept. 10--The chairman of the Electronics Commission, Dr M. D. Sanjeevi Rao, released here today the first indigenous circuit design for colour TV sets drawn by Bharat Electronics.

The merit of the design is that the majority of the components used in it, besides those of BEL, are indigenously manufactured and easily procurable. Quite a few of them are manufactured by BEL itself, while some others by State electronics undertakings, like Keltron.

It was stated at today's function that, although BEL's own components would cost around Rs 300 out of the total cost of Rs 3,000 required for the components of a colour TV set, the BEL design, employing indigenous components, should enable the consumer cost to be brought down. Officials, however, quickly added that it would depend upon the manufacturer and his scale of operation.

Television manufacturers attending today's function were given not only the BEL design manual, but also detailed information about sources of supply of the components. The colour picture tube is the only major imported item.

Dr Sanjeevi Rao congratulated BEL for its design and for offering its comprehensive indigenous CTV receiver expertise to the television industry. It was a creditable first, like its earlier similar exercise for black and white television receiver, and would contribute in building up a strong base for indigenous manufacture of various components. He hoped television manufacturers would take the fullest advantage of the design.

Noting that there had been a substantial growth in the electronics industry, particularly in consumer electronics, in recent years, he noted that the Government was supporting such growth through various promotional measures, both fiscal and policy. Also, in the ambitious annual production target of over Rs 10,000 crores by the end of the Seventh Plan in electronics, the share of consumer electronics would be Rs 2,000 crores.

However, to realize those targets, standardization of components as well as equipment was necessary, in addition to quality assurance. In fact, the growth

of the electronics industry would depend upon developing a strong and vital base of reliable and quality assured components, which, in turn, would be possible only through reduction of variety through standardization.

Dr Rao noted also that for manufacture of colour picture tube, the most critical component, action had already been initiated for indigenous production at three different plants.

Major-General Shyamal Ghose, chairman and managing director of BEL, indicated at today's function that in view of the importance of the manufacture of the components, BEL had planned to step up sharply its production of various components during the Seventh Plan.

CSO: 5550/0006

INDIA

ALL-INDIA RADIO TO GEAR UP EXTERNAL SERVICES

Bombay THE TIMES OF INDIA in English 9 Sep 85 p 9

[Article by M Shamim]

[Text]

NEW DELHI, September 8.

THE government is studying proposals to restructure the external services of the All India Radio to make it an effective instrument for projection of India's image abroad.

Both the external affairs and information and broadcasting ministries are engaged in the exercise of evaluating the present performance of the AIR external services. It has been pointed out to them that many of its programmes are either too short to be effective or have over a period lost their relevance. For instance, a 10-minute programme in Konkani beamed to African countries is too short to have any effect. Besides, it was meant for konkani-speaking Indians in Africa whose number has swindled over the years to an insignificant level.

The AIR also feels that its 15-minute broadcast in French for south-east Asia has also lost its relevance. The French-speaking countries in that area can be better served in Asian languages. The AIR also feels that it should have a service in Divehi language for Maldive Islands.

The inter-ministerial group seems to hold the view that the radio can play a vital role in keeping the Indians abroad well informed about the changes taking place in the country.—

FROZEN IMAGE

Indians spending long periods in other countries seem to retain a "frozen" image of the country and are occasionally misguided by the information plugged in the media by foreigners who spend short period here or are just passing through.

There is a general feeling that Indians who have settled in the U.S. and Canada, for instance, or who have been

there for long stints have not been provided sufficient information about the socio-economic changes taking place in the country. Consequently, they often do not realise that it was not the same country they had left.

This was particularly put into sharp focus during the Punjab crisis. It was found that the Indians in Canada and the U.S. hold views which are based on insufficient information. This often led to serious consequences.

Though the AIR could play a pivotal role in bridging the gaps in the information available to Indians in American continent, it had technological constraints. Its broadcasts could not reach the U.S. or Canada without a relay station in some African country. Both the BBC and the Voice Of America, for instance, were setting up powerful relay stations in Sri Lanka for south-east Asia and the Gulf countries.

TWIN PURPOSE

Both I and B and external affairs feel that the restructuring of the AIR overseas services should be done with twin purpose in mind. It should try to attract the non-Indians in order to project a favourable image and it should update the information of non-resident Indians about the country of their origin.

In certain areas its services were woefully inadequate. It had only a half hour broadcast in Sinhalese language till the trouble broke out in Sri Lanka. It had now been extended to an hour.

It is also proposed that Telugu and Malayalam programmes should be beamed to south-east Asian countries where a large number of Indians would be interested in them.

In order to be effective, the AIR staff incharge of programming should have a first hand knowledge of the area they seek to serve.

CSO: 5550/0004

INDIA

MORE DETAILS ON INDIGENOUS ELECTRONIC PABX GIVEN

Developed in Record Time

Madras THE HINDU in English 6 Sep 85 p 6

[Text]

NEW DELHI, Sept. 5.

The Centre for Development of Telematics (C-DOT) has proposed to come out with some production models of the 128-line digital electronic PABX, developed by it, before passing on the technology for commercial scale manufacture.

According to the spokesmen of the C-DOT, the laboratory-scale model has evoked considerable interest among entrepreneurs at the presentation made on August 29.

At a press conference, the Union Minister of Communications, Mr. Ram Niwas Mirdha and the Chairman of Electronics Commission, Dr. M. S. Sanjiva Rao hailed the development of the 128-line digital electronic PABX by the C-DOT as a significant step towards modernisation of telecommunications in the country. Mr. Mirdha regarded it as an indication of what could be achieved by Indian scientists and technologists provided they worked in proper environment. He noted that the digital electronic PABX had been built around what was indigenously available.

Self reliance: Dr. Sanjiva Rao said that the C-DOT achievement represented an important step towards self-reliance. According to him, there was a craze for foreign technology and the import lobby was quite active. The C-DOT had shown that the Indian talent was capable of developing products of international standards. He said that the import content in the PABX developed by C-DOT was now around 60 per cent and it would come down to 10 per cent in the next few years.

The Executive Director, Mr. G. B. Meemana, said the digital PABX was the first of a family of wholly indigenous electronic digital switching systems to be developed. The other three were: rural exchange (RAEX), main exchange (MAEX) and trunk exchange (TAX). He refuted the criticism that by coming out with a small 128-line PABX, the C-DOT had deviated from its main goal of developing large-sized exchanges. He contended that the small PABX was

only the first step towards the goal which would be achieved within the time-limit of 36 months.

Special features: Mr. S. G. Pitroda, Adviser to C-DOT explained the salient features of the PABX. He said it provided all the basic features required under the Indian environment. Additional sophisticated features could be provided with new software releases. The import content, which was 60 per cent, was mostly in

semi-conductors. The semi-conductor components selected for the family of C-DOT exchanges were based on the indigenous capability of manufacturing both in Bharat Electronics Ltd. and Semiconductor Complex, Chandigarh. Dialogue had already started for the manufacture of these components. With the supply of these components from these factories and other sources the import content of the PABX would come down to 10 per cent.

The manufacturing technology was based on a simple assembly-oriented process with components and piece parts bought from a number of vendors developed by C-DOT.

For a 20,000-line per annum production capacity, the investment cost would be less than Rs. 1 crore which was nearly one-third of that proposed by imported technologies, he said. The development of the 128-line PABX had been completed in a record time of six months by young engineers, he said adding that C-DOT had 200 engineers with an average age of 23.

Apart from the extension to extension call, the C-DOT PABX provided features like call transfer, call forwarding, automatic call back, etc., which were the basic features required in hotels, hospitals and business houses.

Another special feature was that it provided simultaneous voice and data capability. This would enable interconnecting computers and terminals.

New Delhi PATRIOT in English 8 Sep 85 p 7

[Article by M K Kaul]

[Text]

A paanwala in the very near future has something more to offer than the good old betelnut or the new 'paan masala'. A well-known breed in North India, whose magical fingers concoct savoury delicate green leaf and lime, the paanwala may become a vital channel for long distance communication.

Thanks to the futuristic telephone network that the C-DOT, or Centre for Development of Telematics, is developing, it will be possible to make STD calls from a paan-shop instead zipping off to a telephone exchange or post office. And the paanwala will not object to your making a long-distance call. He could devote full attention to the paan of your choice for he would know that a little meyer in the belly of the telephone is ticking away, recording accurately how long your call lasted.

After saying goodbye, all you have to do is to read the meter-dial, pay your charge, pick your paan and walk away with a smile.

C-DOT — a 36-month and Rs 36 crore venture of the Union Communications Ministry and the Department of Science and Technology — which was registered in August 1984, has already proved that all its theories to improve the Indian telecommunication system are not weird and can be put into practice by the Indians themselves without much sought after "technical collaborations" with the developed West.

In barely six months it has given to the world its first digital telephone, linked to computer terminals, to provide communication along with telephone conversation. Of course, to the country it has given the first ever indigenously manufactured electronic digital private automatic branch exchange, or PABX, of 128 lines.

And the man behind all this, who was vehemently criticised by the 'usual know alls' at the start, is Satyen Pitroda, 43 — a non-resident Indian, who is proud of the Indian talent, but detests the Indian red-tape which, he says, stifles the "innovative" Indian mind.

"What India needs is debureaucratization of science and technology", he remarks, and to prove his point he points towards the C-DOT which has gathered around itself young scientists to bring a silent revolution in the telecommunication that has today become a billion dollar bet in the West.

Of course, for Pitroda C-DOT has become a mission. He draws a grand salary of Rs one per month, though he commutes between Chicago, his 'home-town' in the US for over two decades, and New Delhi, his office, twice in a month. On Saturday, when this reporter met him for an interview in the forenoon at his office, he had already two sessions with his colleagues and with some outsiders and "my day ahead is full of work ... and I am flying out home tonight". All this he said in a matter of fact tone, though it was apparent that he was looking forward to meet his kids home: a 10-year-old son, Salil, and daughter, Rajal, 7.

Pitroda is not just an Indian US-settler who comes back home to talk about the rich-

es he has made there or "what a wonderful life there is in the States". Money he has made in tonnes there and he makes no bones about it. But today he slogs in India not to give a lesson on as how to amass wealth or to work as an honest broker for some multinational for his personal advantage. He is here to break the multinational shackles which

are slowly but surely taking over the developing countries in a subtler way.

Of course, one may ask as to how the telecommunication is going to help him in his avowed mission. Telecommunication today, he pointed out, was gripping almost all the activities of the world. "Is there any field that the telephone does not fit in directly or indirectly?" he asked, and himself gave a big no. As the world would continue to get shorter the telecommunication system would gain in its importance and for a country of India's size it would become all the more imperative.

Then the issue is: Should India continue to depend on the Western bred system? And for him, it should not. Why not? One tends to ask and he has a sound answer for this. The western technology has been developed for different environment and climatic conditions and thus, he argues, it is difficult to marry it with the Indian system which is "very complex one".

The most western technologies are designed for their own system, which are different from the Indian ones. Most western telephone networks are characterised by a

high density of telephone connections and low traffic per connection. The situation in India is quite the opposite: low density of telephone connections, and very high traffic per connection. And obviously a technology suited for the first situation would not fit in the second.

And to prove his point he talks about the

crossbar system India imported from Belgium in the 1960s. It did not work well. It got quickly choked. "Do you know why?", he asks, and then himself adds, "because it was designed for the lighter traffic". And even the French system that was contracted about three years ago had not been tried out in Bombay till late last year. "Marrying of the two systems is not easy", he remarks.

Pitroda makes a few more points as to why India has to develop its own telecommunication system. Foremost is that India needs a very high ratio of public telephones, and the technology developed abroad is not designed to meet it. Then the adopting country can easily master the imported

technology. For it is easy to transplant than to transfer, he says adding, for every thing

lies here, pointing towards his head. "You cannot put it all down on paper".

It was with this all in mind that he had visited India in 1981 to convince Mrs Indira Gandhi that purchase of a know-how here and technology there was not in the interest of India. And thus began the extraordinary story of C-DOT.

It was a newspaper clipping sent by a friend about the Sarin Committee on Telecommunications that tickled him to action. He soon wrote to the author of the report for a hearing. Soon enough, he winged his way to New Delhi, where a meeting with Mr H C Sarin was followed up by one with former Principal Secretary to Mrs Indira Gandhi. Some well-wishers also intervened and deft handling of the case gave him a chance to meet Mr Rajiv Gandhi then only one of the general secretaries of the Congress. All this finally ended in a meeting with Mrs Gandhi where he put his slides to maximum use to get his message across.

The meeting followed by bureaucratic wranglings till after hectic activities he convinced all the concerned that he meant business in the interest of the country. And today, the promise has become a reality.

CSO: 5550/0001

INDIA

BRIEFS

NEW DIGITAL EXCHANGE--AHMEDABAD. Sept 8--The country's third digital electronic telephone exchange was inaugurated here on Saturday by Mr. M. P. Aggrawal, Member, Telecommunication Board. Two such exchanges are in operation in Bombay and Kanpur. The 10,000-line fully digital, computer-controlled exchange has been built at a cost of Rs. 13 crores. Explaining the salient feature of the exchange, the Ahmedabad Telephones General Manager, Mr. D. K. Gupta said that with the introduction of the world's latest system, subscribers would have less complaints as the number of faults would be minimised. [Text] [Madras THE HINDU in English 9 Sep 85 p 16]

CSO: 5550/0005

IRAN

BRIEFS

BO'INZAHRA AUTOMATIC TELEPHONE CENTER--The 400-number automatic telephone center of Bo'inzahra, in Qazvin, was commissioned this morning, during a ceremony. The center has a 400-number XP100 automatic exchange and a 60-channel radio. It is situated between Qazvin and Bo'inzahra and has seven output and six input channels. It is connected to the country's communication system via Qazvin. It cost nearly 120 million rials, financed by the capital investment allocation of Iran Communication Company. According to a report by a Central News Unit correspondent, with the commissioning of the exchange, the people of Bo'inzahra can dial places inside and outside the country and the people in other areas can contact Bo'inzahra by dialing the code 02835. [Text] [Tehran Domestic Service in Persian 1630 GMT 16 Sep 85]

SANANDAJ RADIO TRANSMITTER OPENED--This evening the new 20 kw radio transmitter of Sanandaj was opened during a ceremony. The transmitter broadcasts its programs on 193 met corresponding to 1,548 Khz. In conjunction with the Marivan radio transmitter which transmits its programs on 203 met, corresponding to 1,476 Khz, the Sanandaj radio operates 16 hours a day, broadcasting locally-produced programs in Persian, Surani Kurdish, Sanandaji Kurdish and Gurani Kurdish as well as various towns of Kordestan Province and the border strip. It should be explained that before this transmitter became operational the local programs were being broadcast by interrupting national network programs. [Excerpts] [Tehran Domestic Service in Persian 1630 GMT 21 Sep 85]

CSO: 5500/4700

PAKISTAN

OFFICIAL SAYS POSITIONS FOR PAKISTANI SATELLITES RESERVED

Karachi DAWN in English 21 Sep 85 p 8

[Text]

KARACHI, Sept 20: Pakistan has succeeded in getting reserved two positions for launching its geo-stationary communication satellites on the 2,300-mile high equatorial orbit in the next few years, Chairman, Space and Upper Atmosphere Research Commission (SUPARCO) Mr Salim Mehmud said here on Friday.

He told a Radio news conference that Pakistan has been informed by International Telecommunication Union (ITU) that it has been allotted two positions on 38-degree longitude and 41-degree latitude. Pakistan has also been given two high frequencies (11,000-MHZ and 14,000-MHZ) for its communication satellites.

Mr Salim Mehmud said that SUPARCO would be able to launch the two satellites well within the next five years. These satellites would be of great use in setting up an efficient and ultra-modern telecommunication system in Pakistan and revolutionise its tele-links with the rest of the world. India has already launched such a satellite with the help of foreign Power.

The SUPARCO Chairman said, a detailed design of the first satellite to be launched by Pakistan has been completed. The cost of launching the satellite and its economic returns have also been calculated with the help of foreign consultants.

He added that a summary of the satellite project, along with designs, was being made and would be submitted to the Federal Cabinet.

Mr Salim Mehmud said, besides two geo-stationary communication

satellites on an equatorial orbit, SUPARCO was also planning to launch experimental satellites on 700/800-kilometre high orbits.

EARTH STATION: He said that SUPARCO was building an earth station for satellite communication in Islamabad. This station would be mainly meant for receiving photographs of satellite with the help of computers and other modern equipment to locate the countries with hidden mineral wealth. This station would be completed in the next 18 months. It would also help in predicting earthquakes.

The SUPARCO Chairman said, an aerospace training institute would be established in Karachi. It would be affiliated with NED Engineering University and run two-year post-graduate courses in space science. Besides, SUPARCO was sending its scientists and technicians for higher training abroad after giving them an initial 10-month on-the-job training.

Giving a historical background of SUPARCO, he said, tremendous progress has been made since SUPARCO became a full-fledged autonomous commission in 1981. The Space Research Council, SUPARCO's supreme body, is headed by the President of Pakistan and includes several Federal Ministers.

Mr Salim Mehmud said that the Government had provided sufficient funds to SUPARCO for preparing its programmes, aimed at solving the country's economic problems through space research in order to benefit the common people.—APP

PAKISTAN

COMMUNICATIONS LINK WITH INDIA COMMISSIONED

BK231124 Karachi Domestic Service in English 1005 GMT 23 Sep 85

[Text] The Lahore-Amritsar telecommunication link was formally commissioned today with the exchange of greetings between the communication ministers of the two countries. The federal communication minister, Mr Mohyuddin Baluch, talking to his Indian counterpart, Mr Ram Niwas Mirdha expressed the confidence that with the opening of the communication links the two countries will come closer together in the field of telecommunication. He said the Pakistan Government's wish to have the best of relations with India in all fields and the communication ministries of the two countries have provided a good beginning.

The Indian communication minister expressed similar sentiments and hoped that the two countries would cooperate with each in improving relations in different fields with the commissioning of this link. The telecommunication link between Lahore and Amritsar was commissioned with the inauguration of high capacity coaxial cable system between the two countries at a ceremony in Lahore this morning. The federal communication secretary was the chief guest at the inaugural ceremony. A 4-member high-level Indian delegation headed by the communication secretary and the Indian ambassador to Pakistan were also present on the occasion.

Radio Pakistan's representative says the project completed at a cost of 14 million rupees, will have a capacity of 1,800 telephone channels along with one television channel between Lahore and Amritsar. The new link will be a (words indistinct) line providing trouble free service to the people. Karachi and Bombay are already linked through satellite.

CSO: 5500/4747

PAKISTAN

BRIEFS

COMMUNICATIONS LINKS WITH INDIA—Indian communications secretary, Thomas A. Kora, arrived in Islamabad from Lahore this morning for talks with Pakistani officials on improving the telecommunications link between the two countries. Talking to newsmen at the airport, he said that due to the immediate steps being taken to improve the telecommunications link between the two countries, the existing system will be converted into a semi-automatic one within the next 2 months. The two countries will discuss linking major cities through the international dialing system. Initially, Pakistan's Islamabad, Lahore, and Karachi will be linked with India's Delhi, Bombay, Lucknow, Calcutta, and Hyderabad. The Indian communications secretary, who participated in the Lahore-Amritsar telecommunications link inauguration in Lahore yesterday, said telex and telegraph services will also be provided through this new link, in addition to exchanging television programs and newscasts. [Text] [Karachi Domestic Service in Urdu 0600 GMT 24 Sep 85 BK]

RADIO STATIONS PLANNED—The parliamentary secretary for the Minister of Information and Broadcasting, replying to a question in the National Assembly, said that a new radio station at Abbottabad in the NWFP, and one each at Zhob, Loralai, and Sibi in Baluchistan would be constructed during the sixth five-year plan period. [Excerpt] [Karachi DAWN in English 23 Sep 85 p 8]

CSO: 5500/4701

GHANA

FM STATION FOR NORTHERN SECTOR

Accra PEOPLE'S DAILY GRAPHIC in English 13 Sep 85 p 8

[Article by Tim Dzanboe]

[Text] **MR Fifi Hesse, Director-General of the Ghana Broadcasting Corporation has announced that a Modulated Frequency (FM) transmission station which would cater for the northern sector of the country will be ready by the end of the year.**

The station, he disclosed, will solely be used for agriculture and development programmes.

The director general announced this when briefing Mr Pedro Hernandez Soto, an official of the Central Committee of the Communist Party in Cuba, in charge of Communication and Propaganda, in his office yesterday.

Mr Hesse said there are plans to replace the short-wave (SW) system with FM stations so as to give adequate coverage to the whole country.

He said the corporation broadcasts at an average of 17 1/2 hours per channel, adding that the full capacity of 24 hours could be attained in view of the present equipment available.

He further noted that the transmission system of the GBC has improved considerably, since reports from Australia, Liberia, Gambia and Nigeria indicate that, transmission reach those countries.

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FINLAND

FIRM DEVELOPS INFORMATION LINK SYSTEM, COULD REPLACE SATELLITES

Helsinki HELSINGIN SANOMAT in Finnish 9 Sep 85 p 32

[Article by Olli Ainola: "The Poor Man's Satellite"]

[Text] It is probably not very often that high tech can offer a so-called soft alternative using an inexhaustible natural resource.

Vaisala Co (1985 budget business volume 200 million markkaa, 500 workers), which makes weather measurement instruments, has developed a new communications system, which in some areas can replace even the satellite. The satellite acts as a kind of mirror for reflecting radio waves in long distance information transferral. In the Vaisala procedure meteors take the part of the satellite.

The firm cleverly calls the system "The Poor Man's Satellite." Its trade name is Meteorisirontalinkki "[Meteor Broadcast Link]."

Over 10 billion meteors fly into the earth's atmosphere from outer space each day. When a meteor strikes the air molecules at the height of 80-120 kilometers it leaves behind an electrically charged ion wake which reflects radio waves.

It was not until the 1950's that this phenomenon was noticed for the first time. Amateur radio operators, among others, had already been using it to some extent. Commercially the phenomenon had not been profitable until now; only the new microprocessors have been able to latch on to the meteor's tail since the ion wake lasts only a microsecond.

Vaisala has built its meteor broadcast link to communicate with its meteorological station. The system consists of a central station and several substations. A substation, for example, could be an automatic meteorological observation station in a desert, the mountains or in an archipelago. However, it can be only about 2000 kilometers from the central station; in other words it is not possible to maintain, for example, intercontinental connections.

Neither is the information processing capacity of the system sufficient for the transmission of pictures, or even speech: the transmission of

information contained on one typewritten sheet of about 2000 strokes would take the system about 20 minutes.

However, the bulk of the communications consists of rather simple measurements and location signals, which can be most advantageously managed precisely with the meteor broadcast link.

"The use of the satellite may be politically difficult, it is expensive and its lifetime is only about seven years on the average. Its delay in information processing may last from tens of minutes to hours (depending on the load), which is generally too much for most environmental measurements," says Risto Kalske, production unit leader of the Vaisala meteorological station systems.

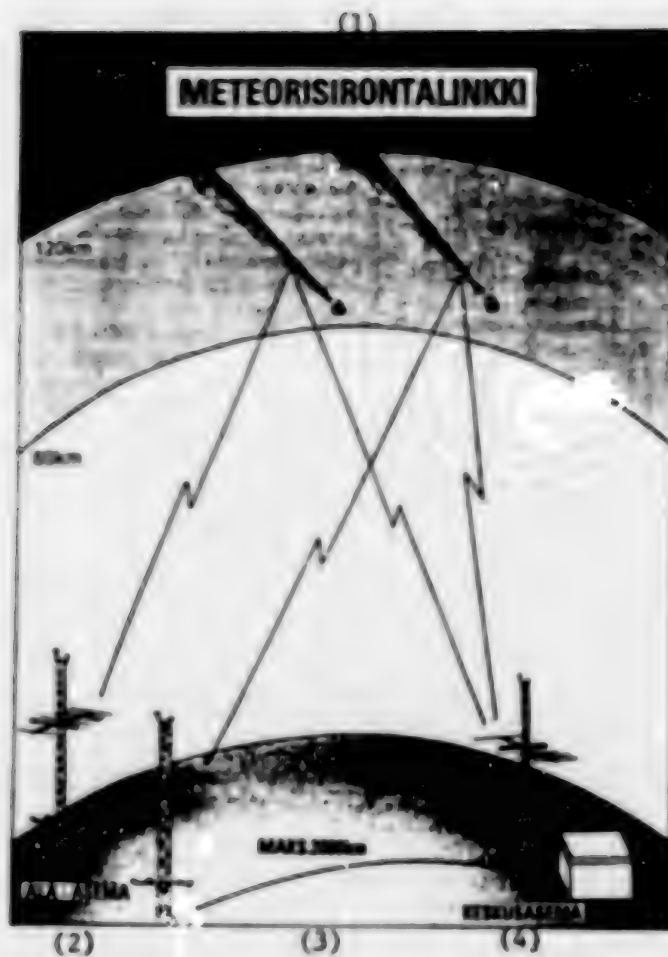
According to Kalske, Vaisala, as well as many customers, are enchanted by the technology, which remains under one's control at all times. Thus no one, for example, can suddenly raise the rent on a channel.

In addition to Vaisala, only one other company in the world manufactures information links based on meteor broadcasting. An American competitor has built for the United States Department of Agriculture, among others, a snow observation network called Snotel, which has 500 observation stations altogether.

Vaisala developed its own system together with the State Technological Research Center. The work began 10 years ago and the equipment was put into production last year.

The company says they have sold about ten apparatus sets to different parts of the world -- but will not reveal where and to whom.

According to Risto Kalske, radio broadcasting technique is universal. "It can be used for civilian as well as for military purposes."



Key:

1. Meteor Broadcast Link
2. Substation
3. Max. 2000 km.
4. Central station

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ITALY

SIP'S 5-YEAR PLAN DETAILED

Milan MONDO ECONOMICO in Italian 28 Feb 85, 28 March 85

[28 Feb 85 p 69]

[Text] This second part of the series of readings of the SIP [Italian Telephone Company] 5-year plan from 1985 to 1989 is dedicated to network evolution and development. The next, and last part in the series, will be dedicated to the theme of "investment, development and economic-financial prospects."

The Telephone Switchboard Network.

Development expected in the next 5 years 1985-1989 for the telephone exchange network is presented briefly in the following figures:

- (a) switchboard telephone numbers will increase from 18.1 million at the end of 1984, to 22.8 million at the end of 1989 (plus 25.7 percent);
- (b) circuit-kilometers of distribution network, that is, subscriber connections to switchboards (which for the first time, and properly, is separate from the network of local trunklines), will increase from 58.6 million to 75.4 million (plus 28.6 percent);
- (c) the network of local trunklines will increase from 13.2 million circuit-kilometers to 16.3 million (plus 23.2 percent);
- (d) finally, the long distance network will rise from 26.6 million circuit-kilometers at the end of 1984, to 31.2 circuit-kilometers at the end of 1989 (plus 17.2 percent).

Simultaneously with expansion required by user and traffic increase, the SIP plan anticipates the network will develop toward numeralization of the exchange as well as transmission. Regarding local exchanges, the percentage of electronic lines compared with the total annual supply should rise gradually from 26.8 percent in 1984, to 100 percent in 1989. This trend should in parallel fashion increase the supply of electronic lines from 2.9 percent at the end of 1984, to 20.5 percent at the end of 1989.

Even as regards long distance switchboards (district and interdistrict) the percentage of electronic equipment compared with annual supply should rise from 68 percent at the end of 1984, to 98.5 percent at the end of 1989. In the meantime, electronic supply (both by division of space as well as by time) should rise from 18.9 percent to 38.6 percent. Regarding transmission networks, the SIP plan reports that:

- (a) traditional technologies will still dominate the distribution network in coming years;
- (b) at the end of the 5 years, 93 percent of connections to the long distance network will have at least one numerical carrier available;
- (c) on the same date, 27 percent of the circuit-kilometers in the city switchboard network will be numerical.

Specialized Networks.

On the one hand, the SIP plan provides for measures within the next 2 or 3 years to close the gap resulting from accumulated delays that can be ascribed to the system of administration of Italian telecommunications which has to some extent been overcome thanks to the new Convention. On the other hand, it provides for the initiation of experiments and field tests which will lead--at the end of the decade--to the development of the RNIS [Service Integrated Numerical Network] and to the use of satellites and optical fiber lines.

The first specialized network developed by SIP is the voice data network. Despite the fact that it was installed many years ago, it received its permit to open only in April 1983. The forecasts of development up to 1986 are reported in the table. The SIP plan expects this network may be gradually expanded to the point where in 1989 it will have a capacity of 25,000 subscribers. Estimated investments for 1985 and 1986 approximately total 46 billion lire (1984 prices), inclusive of linkage between the voice data network and the telephone exchange network.

The second specialized network is that of the packet exchange (Itapac), which is important since it will be the basic support for value-added services supplied by SIP and third parties. The SIP plan, also on the basis of commitments the company undertook by underwriting the new agreements with the Postal Ministry, said the Itapac network will be extended nationwide by February 1986.

By the end of 1985 the network should be integrated with 83 adaptation and concentration modules (ACP) in at least 18 terminal or transit exchange switchboards (NCP) and 2 administrative/maintenance centers with an overall potential of about 7,000 user hookups, of which 65 percent will be X 28 terminals and 35 percent X 25 terminals. The number of places with NCP and/or ACP equipment, presently totalling 27, will increase to 41 in 1985 so as to guarantee adequate nationwide coverage.

For 1986, the SIP plan affirms that present market forecasts indicate a network potential of about 12,000 hookups, with a progressive growth in the percentage of hookups through X 25 terminals. Furthermore it is expected that appropriate

network equipment will be installed for adaptation to the Y. 25 module of the most widely used synchronous modules (for example, the BSC [expansion unknown]). In 1986 further significant services will be offered such as: multilink procedures within the network and to the subscriber, a class of velocity at 48,000 to 64,000 bits per second, fast select and subaddressing. SIP investments planned for Itapac in 1985 and 1986 total 56 billion lire.

Regarding CDN (direct numerical circuits), the SIP 5-year plan envisions the beginning of service in 1985 with a capacity of 1,000 subscriber hookups for synchronous velocities of 2,400, 4,800 and 9,600 bits per second distributed throughout about 30 localities. For 48,000 bits per second the network infrastructure could be adapted according to specific market demand.

Commercial exploitation of CDN is in any case, SIP affirms, tied to a revision of the rate structure. In this regard provisions should be made for making the rate for the long distance link dependent not only on distance but also on speed. Also to be dealt with is the problem of bringing CDN rates into line with those of other types of links. In this regard, we cannot fail to emphasize that much of backlog accumulated in the world of Italian communications is tied to decisions on rates and therefore the risk of postponements upon the opening of CDN unfortunately is not minor.

SIP believes that by the end of 1989 it can achieve an overall size of 34,000 terminal installations on point to point or multipoint links. The overall investment estimated for the 1985 to 1989 period is about 160 billion lire.

Service Integrated Numerical Network (RNIS)

SIP is proceeding in this area in three successive stages: experimentation, pilot service and large scale expansion. In 1984 experiments were made with integration of services in local numerical exchanges and different manufacturers. Also in 1984, SIP started efforts to develop a pilot service whose implementation is expected by the end of 1987 with an initial 2000 subscribers. That service will develop in later years and by the end of 1990 subscribers will total about 50,000. At that time, according to SIP, the basis should exist for a definitive beginning of RNIS services on a national scale.

[28 March 1985 pp 94]

With this third part of the series we conclude the reading of the 1985-1989 SIP 5-year plan. Two subjects that are certainly of general interest remain to be dealt with: that of the "quality of service" and that of "investments, development and economic-financial prospects."

Quality of Service. In the period 1984-1989 the SIP plan declared that it wanted to pursue improvements in the quality of service by operating on three parallel fronts:

- (1) Access to service, or response time to a request for service;

(2) Relationships between subscribers and the SIP and particularly a reduction in response time in the case of "operator assisted" service;

(3) The availability of service and quality of communication; in particular, the average time to repair subscriber equipment. Thus, there should be a decrease from the present 23 hours to 21 in 1989, with maximum response time for business telephones of 24 hours.

Investments 1985-1989

Two aspects are to be emphasized concerning investments provided for in the SIP plan for 1985 to 1989. The first is that no real increase in investment is contemplated. The second is that the investment structure changed considerably over only 4 years. In fact there is an increase of as much as 4 percentage points in the "subscriber terminations" and of a little less than 1 point in "service" to subscribers, compared with the loss of importance in all the other categories, particularly that of switchboards.

Possibility of Financing Investment

The 10-year telecommunications plan, which we have examined in past issues, requires that SIP must provide at least 60 percent of its own financing, having defined self-financing in relationship to the gross financial need (including the repayment of indebtedness). But if we look at fiscal years 1984 and 1985, whose financial accounts are presented in the SIP plan, this goal is still very distant. In both the years there are shortfalls of 1 trillion lire and the estimate of the rate of exchange with the dollar had at that time been set at 1,710 lire for 1984 and 1,780 lire for 1985. The result will be a further indebtedness of the franchise holder, who already at the end of 1984 had finance debts totaling 11.5 trillion lire with finance costs totaling 23.2 percent of gross sales in 1984, and 22.6 percent in 1985. We must not forget that payment to suppliers is required in 180 days; therefore, the financial pressure is reflected over the entire apparatus.

How does SIP presently plan to solve this difficult problem? With 300 billion lire in capital increases and with 3.367 trillion lire in 1985 from financial markets at high interest rates--assuming that the government maintains its promises, that is, of approving a sum of compensatory measures to cover the failure to reduce the franchise rate from 3 percent to 0.5 percent. Outstanding among these is the authorization of the Savings and Loan Fund to grant franchises up to 1 trillion lire annually in low interest financing and the revision of the "company share."

Rate increases will be resumed in 1986 to an extent less than the rate of inflation on the order of 2.5 percentage points per year, which is as much as productivity should increase. In the course of 1987, the franchise would achieve the hoped-for self-financing promised by the 10-year plan (60 percent), but the burden of heavy financial debts will not begin to decrease until 1988.

The road to paradise is therefore still uphill and tied in many ways to political decisions which in our institutional system are particularly muddled.

The question then is: is it considered that compatibility exists with a controlled price system at average cost of money which in 1984 was 16.4 percent with a mix of company and third-party resources which induce administrators to constantly doubt the profitability of the investments? Or, on the contrary: is it believed right that a system that produces a moderate remuneration on the level of operational margin should not commit a larger amount of risk capital?

Obviously, from the point of view of economic-financial administration, the SIP plan does not consider the possible consequences produced by the change in the institutional system, as the Gava plan instead seems to predict. This event, too, could be considered from the point of view of threat, or from that of opportunity for the franchise according to whether the solution adopted is one or the other, and above all whether the modalities are one or the other.

It is important for all to realize that it is a matter of providing a complex of wired services for tomorrow's society which should not represent support for the gyrations of an acrobat. This view seems to have made headway in the energy sector: perhaps it is now the turn of telecommunications.

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21 October 1985

ITALY

POSSIBLE JOINT VENTURES IN ITALIAN TELECOMMUNICATIONS

Milan MONDO ECONOMICO in Italian 3 Jun 85 pp 62, 63

[Article by Giuseppe Caravita: "SIP Should Be Courted"]

[Text] STET telephone company prepares for new alliances with private business in the so-called "VAS," the telecommunications center which in 1988 will gross close to 400 billion lire. Meanwhile Olivetti, IBM, Datamont and others are already preparing.

The supply side, slowly and almost quietly, is aligning itself on the takeoff front of the new value-added services (VAS) telecommunications market. Last 23 April Olivetti established Feva, its associate company for value-added services. But Feva is still a fledgling company: it is preparing plans and strategies, organizational charts and possible fields of action.

IBM Italy is studying a similar plan: providing that the Armonk headquarters approves the project, the informatics leader could within the year begin its entry into the new, deregulated market of new services on the Itapac public data network.

Datamont has already connected its private internal network with Itapac (extended to the entire Montedison group) on which it already sells the VAS and is preparing to distribute them to the new users of the public network (at least 5,000 in 1987). Similar plans are being made by Geisco and ADP (expansions unknown), Italy's foremost suppliers of time sharing data services.

Joint Ventures

SIP [Italian Telephone Company] and STET [Telephone Finance Corporation] negotiations are moving ahead on many fronts. Assessments are being made of the predictable scenarios of market development, possible partners for joint ventures, and the areas in which SIP could enter directly. Nothing is definite but there are many hypothesis: the most reliable distinguishes between "message" value-added services, closely tied to the function of networks (such as electronic mail) in which SIP could operate alone (or in a majority joint venture arrangement), while in the "sectoral" value-added services (such as the telecommunications administration of orders in a particular market) interesting limited

and minority participations could develop in third-party initiatives (such as those mentioned above).

In short, the situation is still extremely fluid. Nevertheless, it is clear that the geography of the new sector, as seen by only the main protagonists, begins to emerge. But it is still too early to tell what the exact shape will be of the network alliances between the "public pole" (SIP-STET) and the new private participants.

What is certain is that the VAS market indicates in advance that it is a crucial area. It is an emerging sector upon which worldwide informatics suppliers, service companies, and telecommunications operators converge. In the United States, the annual gross from services provided on private networks (mainly VAS) reached \$9 billion in 1982 and will grow to \$13 billion in 1987. In Europe, according to an estimate by Frost and Sullivan, the yearly VAS market is expected to rise from a few million dollars currently to \$2.5 billion at the end of the decade. In Italy, a general study by SIP forecasts a potential gross of 400 billion from the new services in the next 4 years after which Itapac will have been completed and the demand for telecommunications affirmed (a scenario expected to develop beginning in 1988).

This new field of "tertiary telecommunications" will in any case be extremely integrated. The symbol VAS in reality covers an almost infinite variety of possible applications: the definition given of it in the telecommunications plan by the Industry Ministry spans "all those data network services in which a supplier processes data, adding value to it according to the needs of the user. Thus for example the processing of messages (with distribution to multiple addresses, different deliveries, electronic post office box...); the collection, verification and distribution of data (for example to businessmen for automation of orders, the transfer of funds, the verification of credit...); telesoftware and telemetrics services; access to centralized office functions."

The Datamont Example.

At the moment, Italian companies having actual experience in value-added services innovation can be counted on one hand. The most advanced, undoubtedly, is Datamont which since 1975 started the first value-added services on its private network. Therefore, we use it as a point of departure to describe the identity of the future supplier of new telecommunications functions.

Datamont began as a direct outgrowth of telecommunications investments by the Montedison group (which today is the prime private user of SIP, as regards number of data lines leased). In 1975 it presented Infomark, an electronic post office box service capable of memorizing messages, data, texts from (and to) every point in the normal telephone network. Now Infomark users total about 200 (including Confindustria which uses it for internal electronic mail, Faritalia for the coordination of research units, the SODIGAS for operation of its gas distribution network).

Infomark, a typical "message" value-added service, formed an association with Gestor in 1983. The latter was the first Italian automated telephone service for the processing of orders in the company distribution network. Gestor is accessible by telephone and it permits the transfer of data from a network for businessmen scattered throughout Italy to company headquarters. In practice, salesmen can transmit the details of orders received at the end of a day via a portable terminal; conversely, company headquarters can transmit confirmation of orders, new business directives, and new price lists. Gestor's clients now include firms such as EMI [Electric and Music Industries] (distributors of musical disk products), Liberty (clothing), Crinos-Ciba (pharmaceuticals), and Standa (large-scale retailers). Gestor has a daily communication "rollover" of between 200 to 300 user points.

Last year saw the beginning of the third type of value-added service, the sectorial type: "the medical-scientific informer" which permits Farmitalia to communicate with its network of medical detail men, to inform them about new products, and to receive messages of any kind.

As can be seen from the succession of principal services organized by Datamont, the Montedison telecommunication system is following the developmental path of the value-added service which is found in the United States and in other advanced nations: from the first "general" services, gradually to the specific value-added services, made to order by sectors which in future will become true "telecommunications markets."

Andrea Pesaro, member of the Datamont board of directors, said, "But before we get to this point the present high cost of data communications (lines leased to SIP and Itapac rates) must be drastically lowered. For the time being we are still in the stage of the first pioneer users and the only ones interested in value-added services are the estimated 5,000 companies (almost all large) which already have a private data transmission network. When Itapac becomes better organized, and most important, less costly, the potential could be expanded to the universe of small and medium businesses. And then this market will really emerge."

Becoming Mature

At present, a data transmission service cannot fail to prepare itself, "to mature" with the first users, to contribute to the expansion of data transmission where there is already a concrete interest. Mario Sisti, director general, said, "The most promising sector today undoubtedly is that of bank networks. Almost all the banks are moving very rapidly toward automated data transmission. The beginning of the ABI [Italian Bankers' Association] is being planned for the electronic transfer of funds, but also distribution of services such as corporate and home banking. Concrete examples already exist, such as the Modena Savings Bank which -- in collaboration with Datamont -- has already linked its computers to a number of businessmen who now do their banking by computer terminal. Experiments of this kind are expected to take place to some extent throughout Italy.

Faced by large investments needed to build networks, to lease lines from SIP, and costs of processors and terminals, many potential promoters of new services are still waiting "in the expectation that demand will really be felt," Sisti said, "while such development in turn is held back by the high cost of transmission." This is an impasse that can be unblocked only by one event: the entrance of SIP into the new market. Pesaro said, "Even though it will certainly be our biggest competitor, the entrance of SIP will not fail to lower the threshold of costs for new services."

In recent weeks, Datamont also had some informal contacts with the SIP-STET management: "We are willing to cooperate," Sisti said. In short, the identifying characteristics of a supplier of value-added services on the emerging Italian market consist of at least three key features: to have services available (software and computers, but it is silly to say this); to have the system know-how for the development of user systems; to be on good terms, perhaps even a joint-venture relationship, with the public administrator in order to aid the takeoff of new initiatives on the broadest possible scale. From this emerge the complex negotiations, with as many partners as possible, centered on SIP-STET.

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